Common Plants of the Mississippi Alluvial Valley and Their Use by Wildlife

Landowners For Wildlife

The Mississippi Alluvial Valley (MAV) is the ecosystem historically containing the Mississippi River and its vast floodplain before the river was extensively leveed in the last century. This rich, productive area is also referred to as the Delta. Characterized by flat terrain, very fertile soils, and susceptibility to flooding, only 20% of these bottomland hardwood forests remain today. Plants growing in the MAV are adapted to varying degrees of flooding .

Nuttall Oak (*Quercus nuttalli*)

Nuttall Oak, more commonly known as striped oak, is a member of the red oak family. It's large (olive sized) acorn requires two years to mature and is easily identified by its vertical stripes. The acorn is highly favored by deer, squirrels, turkeys, bears, and ducks. It is common along the natural levee ridges and banks of rivers and bayous. It is a valuable timber species and can be identified by its dark, tight bark and sharply lobed leaves.

Bitter Pecan (*Carya aquatica*)

Bitter pecan (water hickory) is often found in overflow areas due to its high tolerance for flooding. This flood tolerance can occasionally produce bitter pecan "flats" which are entirely dominated by the species. The nut is bitter, and the tree is not a reliable mast producer, being subject to an early drop of undeveloped fruit . Its leaves are similar to sweet pecan, and the bark is shaggy and light colored.

Overcup oak is a member of the white oak family with acorns maturing in one year. It is found in very wet conditions and is highly tolerant to deep flooding. It is the only oak that has viable acorns which float due to their large caps. Older trees often contain large cavities that are used by squirrels and wood ducks, and are occasionally large enough for a bear den. The bark is light colored and loosely textured, and the leaves have rounded lobes. The large, round acorns may be ping pong ball sized. Its leaf litter hosts a very diverse invertebrate community which is an important food source for wintering ducks.

Overcup Oak (*Quercus lyrata*)

Water Oak (*Quercus nigra*)

Water oak , despite its name, is found on higher, drier sites within the MAV. Water oaks produce a consistent acorn crop from year to year, and many species of wildlife feed on its marble sized acorns. Its dark, tightly textured bark surrounds a valuable red oak lumber. Its leaves are not as lobed as other oaks and are wider at the tip than at the base. It is a very common tree in urban Louisiana settings due to its longevity, large size, and spreading crown. It is often confused with willow oak, but neither water oak nor willow oak are correctly named "pin oak" which is an oak species found in states much further north than Louisiana.

Willow oak is also commonly but incorrectly referred to as pin oak. Although not as tolerant to flooding as overcup oak, willow oak is found at lower elevations, often with sweetgum. Its acorn is smaller, but very similar to a water oak acorn. Its small size makes it a preferred arcon for smaller wildlife such as songbirds. The leaves are not lobed but are long and narrow, resembling willow leaves, from which it gets its name. It is also a common urban tree in Louisiana towns and produces very high grade red oak lumber.

Willow Oak (*Quercus phellos*)

Muscadine grape is one of many species of grapes that naturally grow in Louisiana. The maple-like leaf is a distinctive characteristic. This vine is a preferred browse for deer, and the fruit provides food for bears, deer, raccoons, skunks, squirrels, turkeys and many species of birds. Gray squirrels commonly use grapevines as supporting structures for their leaf nests and as travel routes from tree to tree. The plant is also highly sought by people who make homemade jams and jellies from its distinctive flavored fruit.

Muscadine Grape (*Vitis spp.*)

Over twenty species of dewberries and blackberries grow in Louisiana. They are low-growing vines with numerous small thorns that often grow in thickets. These plants produce fruit in summer, providing an important food source for bears, songbirds, and small mammals. Deer and rabbits will browse the stems and leaves. This plant is probably the most common preferred deer browse species in the southeastern United States. The thickets provide cover for rabbits and nesting sites for songbirds. This plant is also highly sought by people who harvest its tasty and distinctive fruit to make homemade jams and jellies.

Dewberry/Blackberry (*Rubus spp.*)

Greenbriars are a very important wildlife plants. Many species of briar are found in Louisiana, all of which are thorned vines with tendrils that allow them to climb trees. The vines are tough and wiry, and an encounter with one can produce memorable injuries for many hunters. Young, succulent, briar shoots are an extremely attractive browse item for deer. The vines are used as a nesting substrate by many species of birds. The fruit, produced in late winter, provide food for turkey, quail, cedar waxwings, robins, warblers, and other wildlife. Cottontails and swamp rabbits eat the leaves and young shoots.

Greenbriar (*Smilax spp.*)

Contact a local LDWF office for more information www.wlf.la.gov

Spanish moss is an epiphyte (a plant which depends on another plant for support but not for nutrients) commonly seen in the typical Louisiana swamps. It is also very abundant throughout the MAV. Often this moss is found on baldcypress, bottomland oaks, and cedar elms. Spanish moss hosts numerous insects which provide an important food resource for songbirds such as warblers, wrens, and vireos. Two species of birds, the northern parula and yellow-throated warbler, build their nests inside the hanging moss, while other birds line their nests with it. Seminole and northern yellow bats often roost in Spanish moss during the day. It is thought that Spanish moss is sensitive to air pollution.

Spanish moss (*Tillandsia usneoides*)

Cane (*Arundinaria spp.*)

Cane was once much more prevalent than it is today. Thick expanses of cane, called canebrakes, were once found throughout the MAV. Scientific research now suggests that canebrakes were maintained by fire, similar to grassland prairies and longleaf pine ecosystems. Canebrakes were important habitats for Louisiana black bears, and the colorful canebrake rattlesnake gets its name from its ability to blend in perfectly with the cane leaf litter that has fallen inside a canebrake. It is thought that Swainson's warbler and the now extinct Bachman's warbler used cane as nesting substrate. Many conservation agencies are working towards restoring native canebrakes to the MAV.

Louisiana Department of Wildlife and Fisheries
Wildlife Division Private Lands Program
Written by : Randall Hanks, Wildlife Biologist

Sponsored by